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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/674,505	10/01/2003	Shigeru Sugaya	243398US6	4242
22850	7590	05/29/2007		
OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314				
			EXAMINER	
			MILORD, MARCEAU	
			ART UNIT	PAPER NUMBER
			2618	
			NOTIFICATION DATE	DELIVERY MODE
			05/29/2007	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary

Application No.

10/674,505

Applicant(s)

SUGAYA, SHIGERU

Examiner

Marceau Milord

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) 5 is/are allowed.
- 6) ☒ Claim(s) 1,2,4,6-10 and 13-15 is/are rejected.
- 7) ☐ Claim(s) 3,11 and 12 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-2, 4, 7-10, 13-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Freeny, Jr. (US Patent No 7110744 B2) in view of Doviak et al (US Patent No 6418324 B1).

Regarding claim 1, Freeny, Jr. discloses a wireless communication device (719 of fig. 7), connected to equipment having a plurality of input/output terminals (710a-n of fig. 7), comprising: interface means (710L of fig. 7) for connecting equipment having a plurality of input/output terminals (col. 11, lines 33-59; col. 13, lines 23-49); connection information exchange means for exchanging information on equipment connected to each input/output terminal, with other wireless communication devices (col. 11, line 54-col. 12, line 24; col. 12, lines 38-61); storage means for storing information on equipment connected to each input/output terminal (col. 31, lines 44-67; col. 9, lines 5-22); and information transmission/reception means

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for transmitting and receiving information on equipment connected to input/output terminals (col. 11, lines 36-53; col. 13, lines 23-38).

However, Freeny, Jr. does not specifically disclose the features of an input/output switching operation that can switch wireless transmission between pluralities of wireless communication devices.

On the other hand, Doviak et al, from the same field of endeavor, discloses an apparatus and method that include a remote network controller that logically resides between the host network and the existing infrastructures that are used to provide communications network contact with one or more remote devices. The remote network controller is connected to the host communication network. Each remote device may be provided with an asynchronous serial data interface to communicate with a mobile data controller. The mobile data controller, in combination with the remote network controller, provides end-to-end data communication such that incompatible protocols are transparent to the remote device and host communication network. A router may be provided which selects a communications network. The router communicates over a plurality of incompatible networks and is capable of using a variety of different protocols (col. 5, lines 20-59). Switching between the pluralities of incompatible networks is transparent to the remote device and host communication network. The apparatus for transporting data further comprises a plurality of network interface means connected by a local network and a synchronization means for synchronizing the transfer of information between the network interface means, the information comprising routing tables and status information. A mobile data controller connects the remote device and a wireless communications link, and the host communication network and the wireless communications link being interfaced by a

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network interface device. Furthermore, the apparatus comprises a selection system for dynamically selecting a network from the plurality of incompatible networks based on the network selection criteria and a switching system for switching to the selected network to use for data transport. It determines whether to switch wireless communication links, and switching to the next wireless communication link in response to a result of the determination. The switching system switches networks during the time between the transports of consecutive data packets (col. 6, lines 20-59; col. 10, lines 32-60; col. 12, lines 6-18). It is considered that the input/output switching operation can switch wireless transmission between pluralities of wireless communication devices. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply the technique of Doviak to the communication system of Freeny in order to provide a method for transporting data from a remote wireless device to a wired network.

Regarding claim 2, Freeny, Jr as modified discloses a wireless communication device (719 of fig. 7), connected to equipment having a plurality of input/output terminals (710a-n of fig. 7), wherein information on equipment connected to each of said input/output terminals is managed in association with other wireless communication devices, and information on equipment connected to each input/output terminal is transmitted and received according to input/output switching of said equipment having a plurality of input/output terminals (col. 11, lines 36-53; col. 12, lines 38-61; col. 13, lines 23-38).

Regarding claim 4, Freeny, Jr. discloses a wireless communication method, in a wireless communication device (719 of fig. 7), connected to equipment having a plurality of input/output terminals (col. 11, lines 33-59; col. 13, lines 23-49), comprising the steps of: notifying a selected

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wireless communication device of the utilization of input/output terminals to request information according to said input/output switching (col. 35, lines 14-31; col. 35, lines 43-65; col. 36, lines 9-21; col. 11, line 54-col. 12, line 24) and transmitting information on equipment connected to each input/output terminal in response to a request for information in said utilization notification step; wherein information on equipment connected to each of said input/output terminals is managed in association with other wireless communication devices (col. 11, line 54-col. 12, line 24; col. 12, lines 38-61), and information on equipment connected to each input/output terminal (col. 11, lines 36-53; col. 13, lines 23-38).

However, Freeny, Jr. does not specifically disclose the features of an input/output switching operation that can switch wireless transmission between pluralities of wireless communication devices.

On the other hand, Doviak et al, from the same field of endeavor, discloses an apparatus and method that include a remote network controller that logically resides between the host network and the existing infrastructures that are used to provide communications network contact with one or more remote devices. The remote network controller is connected to the host communication network. Each remote device may be provided with an asynchronous serial data interface to communicate with a mobile data controller. The mobile data controller, in combination with the remote network controller, provides end-to-end data communication such that incompatible protocols are transparent to the remote device and host communication network. A router may be provided which selects a communications network. The router communicates over a plurality of incompatible networks and is capable of using a variety of different protocols (col. 5, lines 20-59). Switching between the pluralities of incompatible

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networks is transparent to the remote device and host communication network. The apparatus for transporting data further comprises a plurality of network interface means connected by a local network and a synchronization means for synchronizing the transfer of information between the network interface means, the information comprising routing tables and status information. A mobile data controller connects the remote device and a wireless communications link, and the host communication network and the wireless communications link being interfaced by a network interface device. Furthermore, the apparatus comprises a selection system for dynamically selecting a network from the plurality of incompatible networks based on the network selection criteria and a switching system for switching to the selected network to use for data transport. It determines whether to switch wireless communication links, and switching to the next wireless communication link in response to a result of the determination. The switching system switches networks during the time between the transports of consecutive data packets (col. 6, lines 20-59; col. 10, lines 32-60; col. 12, lines 6-18). It is considered that switching input/output of said equipment having a plurality of input/output terminals, where the input/output terminal is transmitted and received according to input/output switching of said equipment having a plurality of input/output terminals. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply the technique of Doviak to the communication system of Freeny in order to provide a method for transporting data from a remote wireless device to a wired network.

Regarding claim 7, Freeny, Jr. discloses a wireless communication device (719 of fig. 7), which is connected to equipment executing an application and performs wireless communication with other wireless communication devices (col. 11, lines 33-59; col. 13, lines 23-49),

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comprising: equipment-specific information detection means for detecting equipment-specific information indicating data input/output relations of equipment executing the same application as said application (col. 5, lines 19-25; col. 6, lines 53-60; col. 11, line 33-col. 12, line 24; col. 12, lines 38-61; col. 11, lines 36-53; col. 13, lines 23-38).

However, Freeny, Jr. does not specifically disclose the features of a means for mutually setting unidirectional device link relations with other wireless communication devices connected to equipment executing the same application as said application, based on said equipment-specific information.

On the other hand, Doviak et al, from the same field of endeavor, discloses an apparatus and method that include a remote network controller that logically resides between the host network and the existing infrastructures that are used to provide communications network contact with one or more remote devices. The remote network controller is connected to the host communication network. Each remote device may be provided with an asynchronous serial data interface to communicate with a mobile data controller. The mobile data controller, in combination with the remote network controller, provides end-to-end data communication such that incompatible protocols are transparent to the remote device and host communication network. A router may be provided which selects a communications network. The router communicates over a plurality of incompatible networks and is capable of using a variety of different protocols (col. 5, lines 20-59). Switching between the pluralities of incompatible networks is transparent to the remote device and host communication network. The apparatus for transporting data further comprises a plurality of network interface means connected by a local network and a synchronization means for synchronizing the transfer of information between the

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network interface means, the information comprising routing tables and status information. A mobile data controller connects the remote device and a wireless communications link, and the host communication network and the wireless communications link being interfaced by a network interface device. Furthermore, the apparatus comprises a selection system for dynamically selecting a network from the plurality of incompatible networks based on the network selection criteria and a switching system for switching to the selected network to use for data transport. It determines whether to switch wireless communication links, and switching to the next wireless communication link in response to a result of the determination. The switching system switches networks during the time between the transports of consecutive data packets (col. 6, lines 20-59; col. 10, lines 32-60; col. 12, lines 6-18). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply the technique of Doviak to the communication system of Freeny in order to provide a method for transporting data from a remote wireless device to a wired network.

Regarding claim 8, Freeny, Jr as modified discloses a wireless communication device (719 of fig. 7), further comprising: information exchange means for exchanging information with other wireless communication devices, wherein equipment-specific information on equipment connected to said other wireless communication devices is exchanged (col. 6, lines 52-65; col. 11, lines 33-53).

Regarding claim 9, Freeny, Jr. discloses a wireless communication method, in a wireless communication device (719 of fig. 7) connected to equipment executing an application, comprising the steps of: exchanging, with other wireless communication devices, information indicating data input/output relations of equipment executing the same application as said

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application (col. 11, line 54-col. 12, line 24; col. 12, lines 38-61; col. 11, lines 36-53; col. 13, lines 23-38).

However, Freeny, Jr. does not specifically disclose the features of a means for mutually setting unidirectional device link relations with other wireless communication devices connected to equipment executing the same application as said application, based on said information indicating input/output relations.

On the other hand, Doviak et al, from the same field of endeavor, discloses an apparatus and method that include a remote network controller that logically resides between the host network and the existing infrastructures that are used to provide communications network contact with one or more remote devices. The remote network controller is connected to the host communication network. Each remote device may be provided with an asynchronous serial data interface to communicate with a mobile data controller. The mobile data controller, in combination with the remote network controller, provides end-to-end data communication such that incompatible protocols are transparent to the remote device and host communication network. A router may be provided which selects a communications network. The router communicates over a plurality of incompatible networks and is capable of using a variety of different protocols (col. 5, lines 20-59). Switching between the pluralities of incompatible networks is transparent to the remote device and host communication network. The apparatus for transporting data further comprises a plurality of network interface means connected by a local network and a synchronization means for synchronizing the transfer of information between the network interface means, the information comprising routing tables and status information. A mobile data controller connects the remote device and a wireless communications link, and the

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host communication network and the wireless communications link being interfaced by a network interface device. Furthermore, the apparatus comprises a selection system for dynamically selecting a network from the plurality of incompatible networks based on the network selection criteria and a switching system for switching to the selected network to use for data transport. It determines whether to switch wireless communication links, and switching to the next wireless communication link in response to a result of the determination. The switching system switches networks during the time between the transports of consecutive data packets (col. 6, lines 20-59; col. 10, lines 32-60; col. 12, lines 6-18). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply the technique of Doviak to the communication system of Freeny in order to provide a method for transporting data from a remote wireless device to a wired network.

Regarding claims 10 and 13, Freeny, Jr. discloses a wireless communication method, in a wireless communication device (719 of fig. 7) connected to equipment executing an application, comprising the steps of: detecting a registration signal caused by operation of a registration of the other wireless communication device within a predetermined registration information reception time after detecting a registration signal (col. 11, lines 33-59; col. 13, lines 23-49); notifying the other wireless communication device of existence information concerning one wireless communication device after said predetermined registration information reception time has elapsed (col. 11, line 54-col. 12, line 24; col. 12, lines 38-61); and exchanging a registration request (is interpreted as a request for authorization) that mutually registers link relations with one wireless communication device and transmitting the request (col. 11, lines 60- col. 12, line

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24; col. 14, lines 50-67), when said existence notification is received by the other wireless communication device (col. 11, lines 36-53; col. 13, lines 23-38).

However, Freeny, Jr. does not specifically disclose the features of an input/output switching operation provided on one wireless communication device.

On the other hand, Doviak et al, from the same field of endeavor, discloses an apparatus and method that include a remote network controller that logically resides between the host network and the existing infrastructures that are used to provide communications network contact with one or more remote devices. The remote network controller is connected to the host communication network. Each remote device may be provided with an asynchronous serial data interface to communicate with a mobile data controller. The mobile data controller, in combination with the remote network controller, provides end-to-end data communication such that incompatible protocols are transparent to the remote device and host communication network. A router may be provided which selects a communications network. The router communicates over a plurality of incompatible networks and is capable of using a variety of different protocols (col. 5, lines 20-59). Switching between the pluralities of incompatible networks is transparent to the remote device and host communication network. The apparatus for transporting data further comprises a plurality of network interface means connected by a local network and a synchronization means for synchronizing the transfer of information between the network interface means, the information comprising routing tables and status information. A mobile data controller connects the remote device and a wireless communications link, and the host communication network and the wireless communications link being interfaced by a network interface device. Furthermore, the apparatus comprises a selection system for

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dynamically selecting a network from the plurality of incompatible networks based on the network selection criteria and a switching system for switching to the selected network to use for data transport. It determines whether to switch wireless communication links, and switching to the next wireless communication link in response to a result of the determination. The switching system switches networks during the time between the transports of consecutive data packets (col. 6, lines 20-59; col. 10, lines 32-60; col. 12, lines 6-18). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply the technique of Doviak to the communication system of Freeny in order to provide a method for transporting data from a remote wireless device to a wired network.

Regarding claim 14, Freeny, Jr as modified discloses a wireless communication method, in a wireless communication device (719 of fig. 7) connected to equipment executing an application, wherein when said encoding information is exchanged while explicitly stating data input/output relations of equipment executing the same application as said application and application information is transmitted, data encoded according to said encoding information is transmitted (col. 11, lines 33-67; col. 12, lines 4-29; col. 6, lines 52-60).

Regarding claim 15, Freeny, Jr. discloses a wireless communication system, which performs wireless communication among wireless communication devices (719 of fig. 7) connected to equipment executing an application, comprising: a wireless communication device which mutually sets input or output unidirectional device link relation with other wireless communication devices connected to equipment executing the same application as said application (col. 11, lines 33-59; col. 13, lines 23-49), based on information indicating the data input or output relation of equipment executing the same application as said application (col. 11,

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line 54-col. 12, line 24; col. 12, lines 38-61; col. 6, lines 53-65; col. 11, lines 36-53; col. 13, lines 23-38).

However, Freeny, Jr. does not specifically disclose the features of a means connected to equipment executing the same application as said application based on information indicating the data output or input relation of equipment executing the same application as said application.

On the other hand, Doviak et al, from the same field of endeavor, discloses an apparatus and method that include a remote network controller that logically resides between the host network and the existing infrastructures that are used to provide communications network contact with one or more remote devices. The remote network controller is connected to the host communication network. Each remote device may be provided with an asynchronous serial data interface to communicate with a mobile data controller. The mobile data controller, in combination with the remote network controller, provides end-to-end data communication such that incompatible protocols are transparent to the remote device and host communication network. A router may be provided which selects a communications network. The router communicates over a plurality of incompatible networks and is capable of using a variety of different protocols (col. 5, lines 20-59). Switching between the pluralities of incompatible networks is transparent to the remote device and host communication network. The apparatus for transporting data further comprises a plurality of network interface means connected by a local network and a synchronization means for synchronizing the transfer of information between the network interface means, the information comprising routing tables and status information. A mobile data controller connects the remote device and a wireless communications link, and the host communication network and the wireless communications link being interfaced by a

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network interface device. Furthermore, the apparatus comprises a selection system for dynamically selecting a network from the plurality of incompatible networks based on the network selection criteria and a switching system for switching to the selected network to use for data transport. It determines whether to switch wireless communication links, and switching to the next wireless communication link in response to a result of the determination. The switching system switches networks during the time between the transports of consecutive data packets (col. 6, lines 20-59; col. 10, lines 32-60; col. 12, lines 6-18). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply the technique of Doviak to the communication system of Freeny in order to provide a method for transporting data from a remote wireless device to a wired network.

Allowable Subject Matter

3. Claims 5-6 are allowed.

Allowable Subject Matter

4. Claims 3, 11-12, are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Sato discloses a controller for remotely controlling two or more controlled devices.

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Niida discloses a method and apparatus for remotely controlling adjusting functions of an image capturing apparatus.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marceau Milord whose telephone number is 571-272-7853. The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew D. Anderson can be reached on 571-272-4177. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Marceau Milord
Primary Examiner
Art Unit 2618

MARCEAU MILORD


MARCEAU MILORD
PRIMARY EXAMINER